

U. S. Department of Agriculture,

STATES RELATIONS SERVICE.

FORM M-S.

FIELD DIARY
AND
TRAVEL RECORD.

Mr. Vernon E. Egan
1921

(Official title.)
North Dakota, Montana, Idaho & Oregon

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8-3681

INSTRUCTIONS.

Every officer or other employee of the Department of Agriculture conducting work while traveling will, so far as practicable, keep a diary in which will be recorded, under an appropriate date entry, a concise statement of all important matters pertaining to such work and also of any general matters that may be of interest to the Department.

This diary will be retained by the official preparing same, but will be subject to call by the administrative officers of the Department at any time.

When this book is filled another may be secured by application to the Chief of your Bureau.

D. P. Houston

Secretary of Agriculture.

8-3681

[illegible]

July 1, 1920.

Left Washington 6:10 PM
for Bismack North Dakota
and other points for field work.

July 2. Arrived Chicago
3 PM on Pa. Ry. & left
for Minneapolis 6:20 PM
on C.M. & St.P.

July 3, Arrived Minneapolis
11 AM. Went to University
Museum and identified
^{& brought film pack} ~~materials~~. Left for Elk River
4:15 PM and arrived at
4 PM. Out to Meadow Lake
to Geo C Hill's - & to my brother
~~Sunday~~ Charles and Henry
Bailey.

July 4. Over to Chasley
Bailey's, Found flying squirrel
in Martin house. Set traps
for *Citellus franklini* &
C. blinatus.
Got notes on mammals &
on weights from Bernard
Bailey.

Sunday

July 5. Rainy holiday

Tried to dig out ground squirrels but so sandy & cold they could not come out & could not find them.

Dug out chipmunk dens & storehouses & nests. Got much new information. Could have put in a week to advantage exploring dens of ground squirrels, gophers, flying squirrels, gray squirrels etc.

July 6 - Left Elk River
10:20 A.M. on local train
& caught N.P. onward at
St. Cloud. at 1:24 P.M.

Has been very rainy &
wet & cold, but cleared
off with wonderful clear air
& fresh green earth,
cool & crisp.

Detroit, Minnesota
is a beautiful lake region
with large & small lakes of
all sorts, tamarack & spruce
swamps, deciduous & pine
woods, and a mixture of
Transition & Canadian zone.
An ideal place for fur farm
experiments, especially for muskrat
& beaver. West of Detroit
for hours we pass small
lakes & streams & marshes

with abundance of cat-tails,
tulays, lily pads & rich
muskrat food. and streams for
beaver. A good center for
fur experiments & places for
testing fur farming on a practical
basis.

Reached Bismarck 11:30 PM.
Grand Pacific Hotel.

July 7. Went to Capitol &
tramped over prairie north
of town. ~~Set traps.~~

July 8. ~~Set traps~~ for got a few
Microtus, *Peromyscus* & *Onychomys*
Found a bull snake 6 feet long
with a large full grown, fat
Citellus richardsoni in its
stomach. Measured & skinned it
& stuffed it with sawdust.
Found a burrowing owl nest
hole & got pellets in which
I recognized teeth & jaws of
Thomomys, *Citellus*, *Zapus*,
Microtus *p. wahana*, *Peromyscus*,
Onychomys, *Zapus*, *Perognathus*,
Toads, lizards, grasshoppers,
crickets, and numerous beetles.
Peromyscus m. sonoriensis was most
numerous as also the most numerous
in our traps.

July 7th Geo. Will took
us to timbered gulch 18
miles south of town where the
cold springs of good water gather
into a fine little stream in
a gulch fringed with timber of
oak, ash, elm, boxelder,
hackberry, chokecherry, black haw,
and at the heads of the gulches
where snowbanks lie deep dense
thickets of aspens cool down
in one of the cold gulches a
brush of *Populus balsamifera*
and along the stream a few
Viburnum opulus. Wood thrushes
& white throats also grow in
the gulch, showing touches of
Canadian zone plants & the
cold gulches also may carry
Canadian zone mammals.

About a section of land including several timbered gulches facing the Mo. R. & with a great view across to the Square Buttes, Crown Butte, and the high country west of the river would make an ideal game preserve and park for Bismarck on about the scale of Sullys Hill Park. Buffalo & elk & antelope & deer would thrive all the year around if given a chance here & the gulches would furnish shelter and good winter protection.

People go there for berries and service berries now, but more for the good water.

July 10 24 traps down on plots south of town.

Gave talk at meeting of Friends of our Native Wild Life Society in evening.

July 12 Caught squirrels
and boxed them up for keeping alive.
Caught *Lepus* + *Microtus* + *Peromyscus*.

July 13 Geo. Will took us 10 mi.
north on Burnt Creek where
we found 12 *Citellus Richardsoni*
+ caught 3 alive. This
is in an old pasture far
from crops where some
were missed in the poison
campaign.

Found old beaver dams and
good ponds on Burnt Creek
but no signs of beaver.

Will says he found a dead one
there in the spring, probably
shot + wounded & not around
when the rest were taken.

Boxed & shipped 4 flickertails
and 2 flagback squirrels.

July 14 Took 200 train to
Wilton

Bismarck to Baldwin

12 flickertails on ~~west~~ ^{east} side of
train. Florence saw 4 on
~~other~~ ^{east} side but is not used to the
Baldwin to Wilton - 19

flickertails seen on ~~west~~ ^{east} side of
track - Florence saw 6 + 4
doubtful on ~~other~~ ^{east} side.

Wilton to Still on N.P.

5 flickertails on south side
2 on north side (Florence).
1 Jack rabbit

Still to Regan

3 flickertails on south side of track
2 on north side (Florence).

Rogan to Wing

4 flickertails on each side of Ry.
1 *Lepus campestris*

Wing to Arena

3 flickertails on south side of Ry.
2 " " north " "

Lots of lakes and sloughs
near Arena and water birds
and young ducks abundant.

Wenona to Bureau of Mines

23 miles -

6 flickertails seen along road
Said to be scarce since prairie
a few years ago.

1 *Citellus 13lineatus*.

At Sincell, 1 flickertail.

Sincell to Sterling

6 flickertails on south side of track
1 on north side (flower).

Sterling to McKenzie

3 flickertails on south side

McKenzie + Burling to Bismarck

No flickertails seen.

A clear warm day after cold rainy
weather & especially favorable for flickertails.

July 13 - Bismarck

Reynolds came & we took most of day to unpacking & getting out needed supplies & repacking.

July 14 - Got orders to return to Steele to see Game Comissioner George M. Hogue about permits for banding birds. Took 7:40 AM. train for Steele.

One flickertail just before Oriswell and one just after on north side of road
General 1 flickertail

General to Steele 4 flickertails

Steele to General on return, ^{other side of road,} 2 flickertails
General to Oriswell 3 "

Oriswell to Sterling

3 flickertails on south side.

Stull, N.D. - July 14.

Two flocks of Pelicans, 6 and 7,
seen circling at P.M. on still
warm day near station.

At first they were not very high
but one flock above the other.

They whirled and circled in
A formations, changing to one line or
squares but always coming back
to the regular form, . . . , or
. . . , often changing leaders.

For about a half hour they
circled without a wing flap
until the lower caught up and
together the 13 continued
circling up close to a fleecy
white cloud where they looked
like mosquitoes, black against the
cloud and white against the blue sky
and finally I lost them in the blue.
How did they do it!

Sept 1, 1911
for Mandan & left Mandan 6 P.M.
for Killdeer. Arrived Killdeer
11:30 P.M. on slow milk train.

July 18. Met Hon. A.A. Liederbach
Chairman of the Killdeer Mountain
Park Commission who took us
around and over the Killdeer
Mts. in his Ford.

They are 12 miles NW of
Killdeer town and Oakdale P.O.
on the N.E. slope in half
way up the mountain.

Mike Koskusky owns Oakdale
but doesn't want a park.

He is a crafty little old
Dreisschmann and shy about giving
information.

At the Diamond C. Ranch
on Spring Creek we met Mr.

W. L. Richards - owner of the ranch
and member of the Killdeer Park Com.
He owns about 400 acres of land and a
touch of pine blooded stock but has
a lot of money & lives at Dickinson.
Is anxious for the Park and will
help all he can.

Met Mr. Olson on
west side of mountains where
he & his 3 sons have farms
along the base of the range.
with lots of beaver ponds on their
land. They have caught most
of the beaver but a few are left
to stock the streams.

Did not meet Mr. Murphy
who lives just north west of
Oakdale but he has the
best location for a headquarters
for the park and would sell for
10 dollars an acre.

His section of land and pine land
for \$5000. Has plenty of
money, a young wife and
family & wants to move to town.
Is an old timer & knows the
country from away back.

At Oakdale the Weather Bureau
used to have a station and they
may know the altitude of the station
and the mountains.

No glacial action near the Mts.
They are a ridge of horizontal limestone
strata, cut into by water and
waves. Have sheer steep cliffs
in places on all sides, some
caves & caverns, steep slopes
and deep timbered gulches, flat
tops open ridges.

They surtake a level with
the badland buttes to the south
and west. are probably near
1000 feet above Killdeer & 500 feet

above Oakdale,

The Medicine hole on top is a crack or fissure on the narrow ridge down which I could hear stones rattle for 60 feet or more.

A man has been down on a rope 80 feet and an Indian claims to have been down 100 feet to water.

Bats are said to have been seen in it. A column of steam comes out in cold weather.

There is an Indian smoke signal - a hollow rock wound near it.

Good country for western sheep. Antelope, deer, elk, buffalo. All they need is protection.

July 19. Left Killdeer 7 AM. for Stanton

Glacier boulders common before reaching Dunn Center and thence along Ry.

Prairie dogs - a town of 160 acres or more about 3 or 4 miles east of Killdeer, another about a mile or two east of Dunn Center of about 40 acres. A few seen yesterday half way between Killdeer & Oakdale, and a few on the S.W. side of the Killdeers.

Reached Stanton 10:10 AM. and staid at Stanton Hotel, H. C. Loy, proprietor.

Got our meals at Bonner's and lunches at M. L. Cassidy.

Remained at Stanton to July 24,
but failed to get *Oryzomys*
or *Perognathus*. Even *Peromyscus*
are scarce. *Citellus 13lineatus*
are abundant, both grown & living
on grasshoppers.

Caught many alive & saved 2 for
pets.

Oceans of mouse houses and
artichokes on river bottoms.

Also of service berries, chokecherries,
bullberries, thorn apples, plums,
milk weeds, grapes.

200 of rabbits, some beaver & fish still
some deer. Elk & antelope & buffalo &
grizzly bears all gone.

Indians all gone to reservation.
only old mounds & holes to mark the
village sites.

Stanton is on a wide flat at mouth of Kimp river, a sandy flat with old sand dunes all cratting over it.

Largely Sonoran zone as indicated by *Prunus besseyi* full of fruit, *Triplarocalyx micrantha*, *Pboraba angustifolia*, *Helianthus annuus*, *Nyctaginia*, *Euphorbia "caespitosa"*, *Echinacea* pink ray, *Gaillardia*, *Plantago patagonica*, Gramma grass, all in abundance.

This sandy soil carries all of these warm zone plants however and on the heavy high prairie they are not found.

July 24 Mandan to Mandan
10:10 AM, + 3 PM. for
Sentinel Butte where arrived
at 9:30 PM.
To Butte Hotel.

Glacial boulders abundant west
of Mandan to Sims and half a
mile beyond. No more seen.
Watched carefully.

Ranched Sentinel Butte 11 PM.

July 25, Sentinel Butte.

Sunday, Tramped over hills for
birds and especially for Sprague's pipit
over mesa tops. Got notes on
plant & animal life.

July 26 Saw Mrs Crawford,
Set traps for gophers.

July 27, Went to gulch 17 miles
N.E. of Sentinel to sandy
fields but found no Perodipus
signs.

July 28 Left Sentinel Butte
at 3 P.M.

July 28 Reached Butte 8 AM
+ Missoula 11 AM.

Found the deer I had hoped
to get photographs of had
all disappeared.

Went up to Corvallis
by auto stage -

July 29 Trip valley to Dickey
and 11 miles beyond up
Whitfork & back.
No Auto Road over to Salmon.

July 30 to Missoula & Butte
Arrived Butte 10 P.M. &
had to stay over to 7 AM in
morning for train to Boise.

July 31 Left Butte 7 AM for
Pocatillo & Boise.

Monday, on summit 12 AM.

Good auto road from Missoula
and Butte to Dillon and up over
summit & down into Idaho.

Easy grades & good road work.
Said to be a good road through
Big Hole to Dillon - the Park to Park
road. Beautiful country all the
way from Butte to summit and down
to lava beds.

A surprising number of Transition
& Sonoran plants over summit,
Warm winds from Idaho must
carry the Helianthus, Cleome,
Eurotia & such plants over the top
on warm slopes, while Canadian
Zone species, Aspens, Shepherdia
canadensis & such plants grow
on cold slopes.

There is a wide gap of rather
flat country at the saddle, but
snowbanks not far west - cold
steep slopes & high ridges
to the east.

Beaver would find perfect
streams all along Bitterroot
Valley, in the Dillon valley
& all of the western Montana
valleys where willows grow
in great masses along the
creeks, where the fall is steep
and dams would hold ponds
at frequent intervals.

The smaller branches are
preferable as they could be
fenced and dammed to better
advantage, but in some of
the large streams and marshes
are good places for beaver
colonies under control.

On the lava beds of Idaho the
creeks run in deep little
box canyons which are a
mass of willows in the bottom &
would be great for beaver colonies.

Hundreds of thousands of beaver could be raised in western Montana under control without interfering with any present industry & the waste land and willow brush and coarse water grass, cat tails & tuleys utilized with large profit. At the same time much waste water would be held & stored for good use and the waste show lines extended.

The beaver industry could be made to approximate the present sheep industry of the state with the advantage that it would improve instead of devastating the country, that it would be divided among many more ranches,

would be practically clear profit without much labor or time or expense.

The state laws would have to be modified, methods of fencing, live trapping, and hunting would have to be worked out & the habits of the owners better known.

Idaho; between Camas and
Hamer are a lot of cat-tail
sloughs and marshes and shallow
lakes, extending for miles along
both sides of the R.R. I suppose
this is Market Lake? or some
other well known area.

It is full of young & old
ducks and must be a wonderful
breeding ground for waterfowl,
but it is the finest muskrat
region I ever saw. The
cattails & tules would support
thousands of muskrats in addition
to the birds & it ought to be
stocked with the best grade of
black muskrat and managed under
the best methods.

Grays Lake in The Caribee
Mts. is another similar lake.

Just north of Roberts
are other extensive cattail & tule
marshes & sloughs, many hundreds
of acres of them from irrigation
waste, now useless, but ideal
for muskrat marshes.

There are many low places
holes, and rocky gulches
in the irrigated land of
southern Idaho that would
make good muskrat farms
and are worthless for anything else.

Good crops across the
Idaho plains to Pocatello,
where we arrived 4:30 P.M. &
had to stay over night because
a wreck had delayed our train.

Went to Yellowstone Hotel
which is very good.

Aug. 1. Pocatello to Boise

A very hot day over dry, scorched plains alternating with fertile irrigated areas, towns and farms. Reached Boise after dark went to The Grand Hotel.

Aug. 2. Tramped over hills north of Boise. set a few traps - Saw Cranes, rodent kills.

Aug. 3. Met Goldman & Pipes & Jewett.

Aug. 4. Trapping over hills & writing reports.

Aug. 5. Out over open country north of town.

Aug. 6. Took electric car to Caldwell and tramped over valley there, but found very little wild land. Plenty of *Thomomys townsendi* along river flats.

Took 3:30 P.M. train to Ontario, Oregon where we had to stay over night for train to Crane.

Aug. 7. Took 7 A.M. train for Crane and arrived 8 P.M. — 124 miles.

Got supper and took auto stage to Burns, where we arrived about 12 midnight.

Aug. 8. Sunday.
Couldnt get mail till 5 P.M. & got no chucks there.
Saw Dr. Hibbard & got some good information from him.

Aug. 9. Hired auto & drove to The Narrows, then over to The Springers, 9 miles east, but could not stay so went on 2 miles farther to The Biological Survey office and staid with Geo. Benson, the warden a half mile NW of Voltage.

Aug. 10. Went out to edge of lake and saw the ducks and other water birds.

Aug. 11. made traps & set for rodents over hills.

Aug. 12 Made traps & a few skins
set more traps.

Aug. 13 Got Ford & drove to
Malheur cave, about 30 miles
east at head of South Fork
Malheur River where the first
water begins.

The cave is a lava
tunnel where the inside of
a stream has run out.

It is a perfect arch, about
50 feet wide & 25 feet high,
varying considerably in places.



The floor is mostly
flat & smooth and
a good automobile
road has been made half way
down it. We followed it about
a quarter of a mile & came to
water all the way across, so
went no further.

The bottom is damp & wet except near the mouth & there are no side chambers & cracks or dry shelves so there can be no fossils. near the mouth the earth is several feet deep & there are lots of bones in it, some human some cattle & sheep and a few buffalo bones. They are mostly fragments and going to pieces from dampness.

There are many signs of Indian camps around the mouth of the cave, lots of old flint & obsidian chips & broken arrowheads.

The water in the cave is clear and cold and the air is almost too cold for comfort while outside scorching hot.

A few *Coronachyus m. pallidus* were seen flying about just back of the mouth of the cave & one was shot, but no abundance of bats nor any guano were found. The walls are damp and in places dripping with back in the cave. The only dry part is near the entrance. The cave runs toward the river canyon and probably drains into it as the water starts in the river near there and comes out of cracks in the cave banks. It is cold & pure and has fish & crawfish & frogs in it.

I caught 2 tree toads in the cave just back of the mouth where cool & moist. One on the wall and one on the ground.

Aug. 14. Caught only a
Peromyscus oliv., but made
some better traps.

Aug. 15, Sunday. Dust storms
from SW to N.W.

Much rain but did not
reach the ground. Thunder &
lightning.

Trapping.

Aug. 16 - Light frost.
Cool day.

Aug. 17. Hard frost, ice
nearly half inch thick in
bucket at well.

Aug. 18, Went up lake to
Cole Island, about 7 or 8
miles east along south shore
of lake. Drove truck out
to neck between Cole & Pelican
Islands.

Much open water east and
west of Pelican Island. The
water is 2 or 3 feet lower
than before the 3 past dry
seasons.

A road could easily be
graded up to cross the lake
on Cole & Pelican Islands
and give a wonderful view of
the birds in the lake.

Thousands of ducks, coots,
grebes, gulls, pelicans, geese,
Egrets, Great Blue Herons,
Glassy Ibis, Avocets, stilts
and other birds are to be seen.
Gadwall are the most numerous.

Ducks. Lots of Cinnamon and a few blue wing teal & mallards seen. 3 Sheldrakes seen yesterday in big spring.

Thousands of swans come in late fall and early spring to feed on wapato bulbs, the nutty, bulb-like tips of Potamogeton running rootstalks. I dug up some out of mud 6 to 10 inches deep. They are delicious, like fresh coconut. Hundreds of acres of ground now dry but formerly under water looks as if rooted over by frogs where the swans have dug wapato in past years. Other water birds seem to feed on it now as much has been dug up & is floating on surface of lake. It is red mud. see specimens -

fill the lake water & feed many of the birds.

Zuleys grow in great areas around the lake water & the tender shoots and young rootstalks are good food for muskrats, mice & men.

With wapato, tulies & cat-tails one need not starve.

Most of the bay is now cut & much of it staked!

Aug. 19 - Trapped.

R. W. Zimbert, of Boise, Idaho went down to Lake with Benson & they brought back a dead mallard & 2 teal, evidently killed by small leeches which got into their nostrils & nasal passages & sucked all the blood from them. The ducks were put & all vital organs healthy, but there was no blood in their hearts or blood vessels. Heads & leeches saved.

Aug. 20 Went down to Harney Lake and along south ^{east} side nearly to point. Walked out a mile from shore to 2 of the 3 spots where a little water stands, only a few acres and only a few inches deep. It is alkaline brine, apparently a saturated solution of salt & soda. At the largest pool were about 20 ^{young} California gulls, one adult ringbill and five gadwall. There were lots of Cooclabe flies, pupa & cases. Black water beetles of 2 sizes.

The lake bed is white as snow over most of its surface with a crust of salt & soda. Probably springs feed the few wet spots. Dust whirls & mirages are abundant.

Harney Lake must have been 2 to 30 feet deep when the old shore line dunes were thrown up. The shores are stony and hard, the bottom is dried mud, the dunes are sand & mud dust.

Then over was a more desolate & deserted valley of death.

Could find no trace of buffalo bones & even the cattle bones of recent years seem quickly to disappear.

Aug. 21, Trapping, raising pits, making traps & pens & photograph box & taking photos.

Aug. 22 Sunday. Writing photographing, studying habits.

Aug. 23 - Making new kind of traps

Aug. 24 - Trapping & raising for mammals & photographing
Began raining at dusk.

Aug. 25 Rained all night
Cold & rainy all morning.

Aug. 26 Clear & pleasant again.

Sept. 11. Went up Blitzen
River to Rock Ford for Beavers
but found the so scarce
none were secured.
Camped over night in OO
pasture

Sept. 12 - Brought home
load of sagebrush wood
by Sod-house Ranch.
Very windy & Rained -
P.M. all night.

Sept. 14 - Fished for Buffalo
bones in Springers Spring
but found none.

Sept. 15 - Came to Burns on
truck across old dry lake
bed from Springers Ranch due
north, Ford road at 20

water in sight. kept well
east of Wrights Point and
of old Ft. Wright at the
point.

The west line of bird refuge
should be along this road
or a little east of it, to
include Malheur Lake and
a wide border of tule
marsh all around it.

Sept. 16 At Burns, getting
mammal names from Indians,
mainly from Capt. Louis.

Sept. 17 Took stage
across to Bend, 150 miles
leaving Burns at 8 AM &
arriving at Bend 5:30 P.M.
A fierce wind blowing all of
P.M. & so dusty nothing
to be seen.

Country very dry and
barren after 3 dry years.

Sept. 18 Left Bend 7 AM
of had a clear day down the
Des Chutes Valley with the
snow-capped peaks of the Three
Sisters, Washington, Jefferson &
Hood.

The Crooked river canyon
has sheer walls of lava and
leads into the Des Chutes Canyon
with almost continuous lava
rock walls and terraces to
the Columbia River. It is
good mountain sheep country
all the way. The very high
terraced wall across the end of
the ~~Hood~~ Mutton Mts.
leads down to a little above
Sherars Bridge, then there are
rocky walls on one side or
the other most of way to the mouth
of the river.

On both sides of the Columbia
at the mouth of the Des Chutes
are high, pallisades of
Basaltic cliffs, terraced
back to the high mesa tops,
ideal sheep country.
Even the banks of the river in
places are sheer walls of
basalt.

This is the spot where David
Douglas in 1825 got the
horn and saw the Indian wearing
the skin of his Ovis Californicus.
The sheep may have been killed
on the very spot where he got
the horn, or back a half mile or
so. From Sherman Station
I could reach fine sheep cliffs
with a 30-35.

This is one or two miles west
of the falls of the Columbia,
which now at low water are real falls.

apparently 10 or 20 feet - drop
for each fall, and directly below
the other. One big railroad bridge
passes directly over the lower.

Good sharp cliffs continue down
the river on both sides nearly
to The Dalles.

A ship canal with locks
runs around the falls and the
rapids below. and boats have
been running from Portland to Lewiston.
They have now been taken off because
they do not pay expenses.

Got vocabulary & names of places
from Wasco Indian at The Dalles,
Martin Spadis, of Grand Dalles,
Washington,

Sept. 19, The Dalles to
Portland on River Steamer,
The Kellogg, a freight boat,
making her last run between
The Dalles and Portland,
hauling freight & fish &
horses & cattle and a few passengers.
She does not pay expenses &
is to stop running.

Rained & blew by spells but
we had a great view of the peaks
and river banks and bluffs and
falls.

Reached Portland 6:30 PM.
Went to Benson Hotel.

Sept. 20

Got baggage + wrote on reports
saw Mr. Raker + Gabrielson
and talked over Mathews lake
situation.

Sept. 21 Went up to Cascade Locks
with Gabrielson and got a
better idea of this end of the
state. finished talking over
the rodent work and examining
his collection of mammals.

Sept. 22 - Worked all day
on outfit, notes, photographs
and such work as had to be
done before leaving.

Sept. 23 - Left for Netarts
on the coast to see Jewett
and Finley who are down there

Oct. 5 Left Portland

Oct 6-12 - Klamath Falls

Oct. 13 - 30 Lagunitas

Oct. 31 - Fallon, Nevada

Nov. 4 Left Fallon 6 PM

Nov. 5 Mina, Nev. 2:30 to 7 AM.

Mina + Sodaville

Same old country as 30 years ago, no change. Same plants, same mammals. - as birds.

Atriplex confertifolia

Suaeda glandulosa

Ephedra nevadensis

Menadora

No grass except a little salt grass on the flats.

Bellview

Bassalt - no more *Suaeda* ^{except on the higher slopes}

Montgomery - Nut Pine + juniper (summit).

Snowing.

Queen - based steep slope

Benton - in dry valley, 5405 ft.

Alabama hills to west.

Artemisia tridentata, *Oxytropis*,

Atriplex, *Sarcobatus*,

Lemo - lunch

Owens - Supper 6 P.M. dark

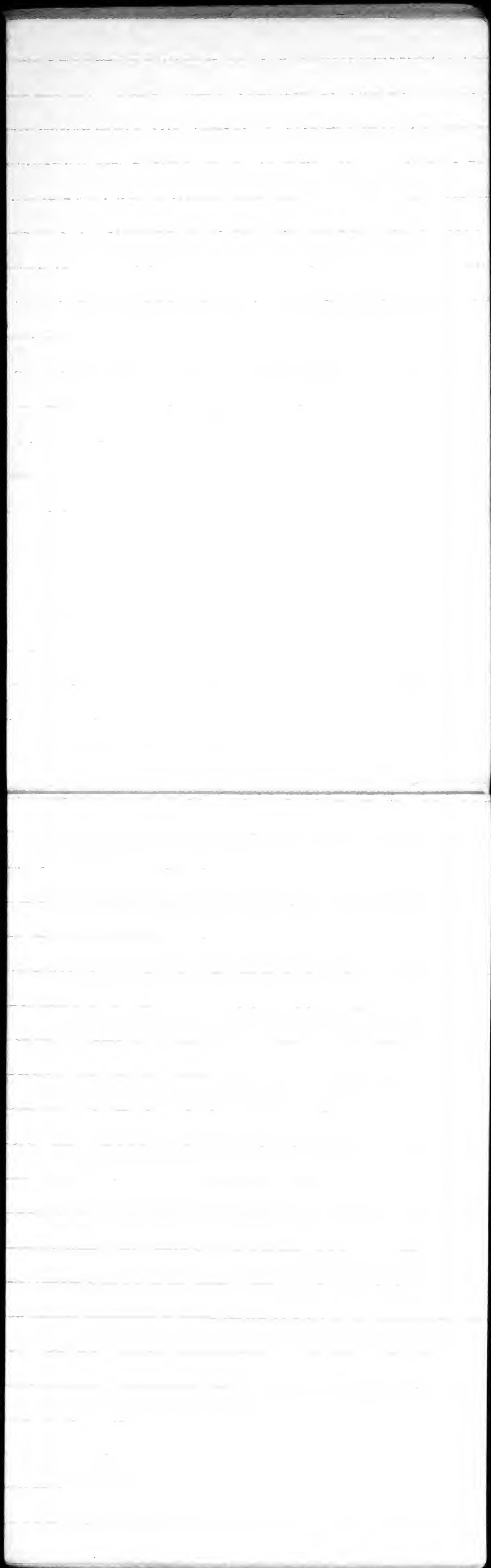
Long Pine, 8 P.M., dark

Nov. 6. Arrived Los Angeles 8 AM
Out to museum

Nov. 7. Sunday to San Marcos

Nov. 8. To San Diego 11 AM.

Nov. 9. Ry. tunnel blocked so
have to return to Los Angeles
for Arizona.



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